

WHAT IS CLAIMED IS:

1. A method for generating power, the method comprising:
providing a heat source with an output of radiation in a predetermined spectrum;
generating a first portion of the power from the absorption of the radiation; and
generating a second portion of the power from a temperature difference between a first element heated by the heat source and a second element at least partially thermally insulated from the first element.
2. The method of claim 1, further comprising cooling the second element.
3. The method of claim 2, wherein the cooling generates a hot water byproduct.
4. The method of claim 1, the generating of the first portion of the power comprises heating a secondary material to give off visible light.
5. The method of claim 4, further comprising heating the secondary material such that it glows in a spectrum that is most efficient for the generating of the first portion of the power.
6. An apparatus for generating power, the apparatus comprising:
a heat source with an output of radiation in a predetermined spectrum;

a photovoltaic material for generating a first portion of the power from the absorption of the radiation; and

thermoelectric effect means for generating a second portion of the power from a temperature difference between a first element heated by the heat source and a second element at least partially thermally insulated from the first element.

7. The apparatus of claim 6, further comprising cooling means for cooling the second element.

8. The apparatus of claim 7, wherein the cooling means comprises a water jacket disposed on the second element and a water supply for re-circulating water through the water jacket.

10. The apparatus of claim 7, wherein the cooling means comprises a fan for forcing an airflow across the second element.

11. The apparatus of claim 6, further comprising a secondary material disposed between the heat source and the photovoltaic material and which is heated by the heat source such that the secondary material gives off a visible light which is incident on the photovoltaic material.

12. The apparatus of claim 11, wherein the secondary material is heated such that it glows in a spectrum that is most efficient for the photovoltaic material.

13. A method for generating power across a rotatable joint, the rotatable joint having first and second rotatable elements rotatably disposed relative to each other, the method comprising:

providing a heat source with an output of radiation in a predetermined spectrum in the first rotatable element;

generating a first portion of the power from the absorption of the radiation from the first rotatable element to the second rotatable element; and

generating a second portion of the power from a temperature difference between a first element heated by the heat source and disposed on the second rotatable element and a second element disposed on the second rotatable element and at least partially thermally insulated from the first element.

14. The method of claim 13, further comprising cooling the second element.

15. The method of claim 14, wherein the cooling generates a hot air byproduct.

16. The method of claim 15, wherein one of the first and second elements has an interior, the method further comprising heating the interior at least partially with the hot air byproduct.

17. The method of claim 13, the generating of the first portion of the power comprises heating a secondary material to give off visible light.

18. The method of claim 17, further comprising heating the secondary material such that it glows in a spectrum that is most efficient for the generating of the first portion of the power.

19. An apparatus for generating power across a rotatable joint, the apparatus comprising:

first and second rotatable elements rotatably disposed relative to each other;

a heat source disposed in the first rotatable element and having an output of radiation in a predetermined spectrum in the first rotatable element;

a photovoltaic means in the second rotatable element for generating a first portion of the power from the absorption of the radiation from the first rotatable element; and

thermoelectric effect means for generating a second portion of the power from a temperature difference between a first element heated by the heat source and disposed on the second rotatable element and a second element disposed on the second rotatable element and at least partially thermally insulated from the first element.

20. The apparatus of claim 19, further comprising cooling means for cooling the second element.

21. The apparatus of claim 20, wherein the cooling means comprises a means for circulating air across the second element to produce a hot air byproduct.

22. The apparatus of claim 21, wherein one of the first and second elements has an interior and the interior is at least partially heated with the hot air byproduct.

23. The apparatus of claim 19, further comprising a secondary material disposed between the heat source and the photovoltaic means and which is heated by the heat source such that the secondary material gives off a visible light that is incident on the photovoltaic means.

24. The apparatus of claim 23, wherein the secondary material is heated such that it glows in a spectrum that is most efficient for the photovoltaic material.

25. A back-up generator comprising:
a heat source with an output of radiation in a predetermined spectrum;
a photovoltaic material for generating a first portion of the power from the absorption of the radiation; and
thermoelectric effect means for generating a second portion of the power from a temperature difference between a first element heated by the heat source and a second element at least partially thermally insulated from the first element.

26. A lawn mower comprising:
a motor having a rotatable shaft;
a cutting blade disposed on the shaft;

a heat source with an output of radiation in a predetermined spectrum;

a photovoltaic material for generating a first portion of the power from the absorption of the radiation;

thermoelectric effect means for generating a second portion of the power from a temperature difference between a first element heated by the heat source and a second element at least partially thermally insulated from the first element;

wherein at least a portion of the first and second portions of the power are supplied to the motor for rotation of the shaft.

27. A tank comprising:

a tank body having a first rotatable element;

a turret having a second rotatable element rotatably disposed on the first rotatable element;

a heat source disposed in the first rotatable element and having an output of radiation in a predetermined spectrum in the first rotatable element;

a photovoltaic means in the second rotatable element for generating a first portion of the power from the absorption of the radiation from the first rotatable element; and

thermoelectric effect means for generating a second portion of the power from a temperature difference between a first element heated by the heat source and disposed on the second rotatable element and a second element disposed on the second rotatable element and at least partially thermally insulated from the first element.